REMARKS

A Request for Continued Examination and the required fee accompany this amendment for the purpose of overcoming the finality of the pending Office Action and obtaining consideration of the claim amendments indicated above.

Claims 1, 3, 5-14, 16, 17 and 19-23 are now presented for examination, claims 2, 4, 15 and 18 having been cancelled in this paper. The Examiner has rejected all claims.

Claims Rejection under 35 U.S.C. § 103

Claims 1, 3, 5 through 9, 11 through 14, 19 and 21 through 23 are rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent No. 6,167,114 ("Siochi") in view of U.S. Patent No. 5,160,847 ("Leavitt").

Claims 10, 16, and 17 are rejected under 35 U.S.C. 103 as being unpatentable over Siochi in view of Leavitt as applied to claim 1 above, and further in view of Karlsson cited by applicant.

Responsive to these claim rejections, the independent apparatus claims 1, 14, 19 and 21 have each been amended to recite a feature that was recited in claims 5 and 20 and in former claim 15 as originally presented. More specifically the amendments to claims 1, 14, 19 and 21 recite that the "second" or "electron" collimator includes drive electronics mounted on an exterior of an accessory tray. This limitation is supported at page 12, lines 19-24 of the specification. At this passage it is explained that such placement of collimator drive circuitry provides greater durability and length of service.

In similar fashion to claims 1, 14, 19 and 21, the method claims 22 and 23 have been amended to recite installing a collimator in an accessory tray such that drive electronics of the collimator are mounted on an exterior of an accessory tray.

In discussing this limitation in the pending Office Action with respect to claim 20, the Examiner referred, at the last full paragraph on page 4 of the Office Action, to a circuit board 61 shown in FIG. 3 of the Leavitt reference. In that passage of the Office Action, the Examiner stated as follows:

> The actual drive electronics are on board 61 (lines 31-37 of column 8) which is mounted in a plane perpendicular to the travel of vanes 40/41 as shown in figure 3 and which therefore is located outside the open end of accessory holder 4.

Applicants respectfully submit that the latter portion of this statement by the Examiner does not logically follow from the first portion of the statement. That is, just because the board 61 is mounted in a plane perpendicular to the travel of vanes 40/41, it does not follow that the board 61 is "located outside the open end of accessory holder 4."

In this regard the Examiner is respectfully requested to compare and to consider as a whole the respective views shown in FIGS. 2 and 3 of the Leavitt reference. FIG. 2 shows the collimator 5 as including a housing (for which no reference numeral is provided). The housing appears to contain all components of the collimator 5 except for the housing itself. On the other hand, FIG. 3 is a partial exploded view showing internal components of the collimator 5, including the circuit board 61. The housing is not shown in FIG. 3. It is not possible to determine from FIG. 3 alone where the board 61 is located relative to the housing, but it seems clear from FIG. 2, which is the more complete drawing, that board 61, like all other internal components of the collimator 5, is contained within the housing of the collimator 5.

Concluding therefore that neither the board 61 nor any other component of the collimator 5 is outside of the housing, it follows that, when the collimator 5 is installed within the accessory holder 4, all of the collimator 5, including its drive electronics board 61, is inside the accessory holder 4. It is therefore respectfully submitted that the Leavitt reference fails to teach or suggest the claimed feature of collimator drive electronics mounted on an exterior of an accessory tray. On this basis, it is believed that the independent claims 1, 14, 19 and 21-23 are now patentably distinguished from the prior art relied upon by the Examiner.

Claims 3, 5-13, 16 and 17 are dependent claims which are submitted as patentable on the same basis as their parent independent claims.

It is noted that the Karlsson reference, upon which the Examiner also relied, was cited for its teaching of a helium-filled container in the beam path, and does not present any issues that require further discussion, in view of the above noted distinctions between claims 1, 14, 19 and 21-23 and the combination of Siochi and Leavitt.

Claim Rejection under 35 U.S.C. § 102

Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Leavitt.

As noted above, claim 20 recites collimator drive electronics mounted on an exterior of an accessory tray. Applicants have pointed out above how the Leavitt reference fails to satisfy

this feature. Accordingly, claim 20 is believed to be patentable on the same basis as claims 1, 14, 19 and 21-23.

CONCLUSION

In view of the above, the pending claims are patentable over the combination of the Siochi and Leavitt references Applicants respectfully request allowance of the pending claims.

Applicants' silence with respect to other comments made in the Office Action (e.g., comments directed to various dependent claims) does not imply agreement with those comments.

Applicants hereby request a two-month extension of time. It is requested that the $410 fee be charged to Deposit Account No._____.

If any issues remain, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned.

Respectfully submitted,

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AMENDMENTS TO THE CLAIMS

1. (currently amended) A radiation therapy device, comprising:

a radiation source positioned to direct a beam along a beam path toward a treatment area;

a treatment head containing a first collimator controllable to selectively collimate said beam, the treatment head including an accessory tray mounted between said first collimator and said treatment area; and

a second collimator removably ~~positioned between said first collimator and said treatment area~~ mounted on said accessory tray and controllable to selectively collimate said beam, the second collimator including drive electronics removably mounted on an exterior of said accessory tray and a plurality of leaves removably mounted on said accessory tray and positionable by said drive electronics to move across said beam path.

2. (cancelled)

3. (currently amended) The radiation therapy device of claim ~~2~~ 1, further comprising a first collimator drive ~~and a second collimator drive, each said drive~~ operable to selectively position individual leafs of said ~~collimators~~ first collimator.

4.(cancelled)

5. (currently amended) The radiation therapy device of claim [[4]] 1, wherein said drive electronics of said second collimator ~~drive is~~ are positioned ~~on an exterior of said accessory tray~~ a distance from said beam path.

6. (original) The radiation therapy device of claim 1, wherein said radiation source includes a photon radiation source and an electron radiation source.

7. (previously presented) The radiation therapy device of claim 6, wherein said first collimator is controllable to selectively collimate a photon beam generated by said photon radiation source.

8. (previously presented) The radiation therapy device of claim 6, wherein said second collimator is controllable to selectively collimate an electron beam generated by said electron radiation source.

9. (original) The radiation therapy device of claim 1, wherein said first and said second collimators are controllable to selectively collimate said beam.

10. (original) The radiation therapy device of claim 1, further comprising:

a helium-filled container positioned along said beam path between said beam source and said second collimator.

11. (presently amended) The radiation therapy device of claim 1, further comprising a control unit coupled to said radiation source and to said first ~~and said second~~ collimator ~~drives~~ and to said drive electronics of said second collimator to selectively deliver a prescribed dose of radiation to said treatment area.

12. (presently amended) The radiation therapy device of claim 11, wherein said control unit is operable to control said radiation source to generate a photon beam and to cause said drive electronics of said second collimator ~~drive~~ to position leaves of said second collimator away from said beam path to deliver a prescribed dose of photon radiation to said treatment area.

13. (original) The radiation therapy device of claim 11, wherein said control unit is operable to control said radiation source to generate an electron beam and to cause said first collimator drive to position leaves of said first collimator away from said beam path to deliver a prescribed dose of electron radiation to said treatment area.

14. (presently amended) A radiation therapy device, comprising:

a control unit;

a radiation source, controlled by said control unit to generate one of a photon beam and an electron beam along a beam path toward a treatment area;

a first collimator, positioned between said radiation source and said treatment area, said first collimator selectively positioned by said control unit to collimate said photon beam;

an accessory tray positioned between said first collimator and said treatment area; and

a second collimator, removably mounted ~~between said first collimator and said treatment area~~ on said accessory tray, said second collimator selectively positioned by said control unit to collimate said electron beam, the second collimator including drive electronics removably mounted on an exterior of said accessory tray and a plurality of leaves removably mounted on said accessory tray and positionable by said drive electronics to move across said beam path.

15. (cancelled)

16. (original) The radiation therapy device of claim 14, further comprising:

a container positioned along said beam path between said first and second collimators.

17. (original) The radiation therapy device of claim 16, wherein said container is filled with helium.

18. (cancelled)

19. (presently amended) A radiation therapy system, comprising:

a control unit;

a treatment head having an enclosed area and an accessory tray;

a photon radiation source, selectively operated by said control unit to generate a photon beam along a beam path from said treatment head toward a treatment zone;

an electron radiation source, selectively operated by said control unit to generate an electron beam along said beam path from said treatment head toward said treatment zone;

a photon collimator, located between said photon radiation source and said treatment zone; and

an electron collimator, removably mounted on said accessory tray, said electron collimator selectively positioned by said control unit to collimate said electron beam, the electron collimator including drive electronics removably mounted on an exterior of said accessory tray and a plurality of leaves removably mounted on said accessory tray and positionable by said drive electronics to move across said beam path.

20. (original) An electron collimator for use in collimating an electron beam in a radiation therapy device, the collimator comprising:

drive electronics, removably mounted on an exterior of an accessory tray of said radiation therapy device; and

a plurality of leaves positionable by said drive electronics to move across a path of said electron beam, said plurality of leaves removably mounted on said accessory tray of said radiation therapy device.

21. (presently amended) A radiation therapy device, comprising:

a radiation source positioned to selectively direct an electron beam and a photon beam along a beam path toward a treatment area;

a treatment head containing a first collimator controllable to selectively collimate said photon beam, and including an accessory tray positioned between the radiation source and the treatment area; and

a second collimator ~~positioned between said first collimator and said treatment area~~ removably mounted on said accessory tray and controllable to selectively collimate said electron beam, the second collimator including drive electronics removably mounted on an exterior of said accessory tray and a plurality of leaves removably mounted on said accessory tray and positionable by said drive electronics to move across said beam path.

22. (presently amended) A radiation therapy method, comprising:

installing an external collimator on an accessory tray of a radiation therapy device such that drive electronics of said external collimator are mounted on an exterior of said accessory tray;

operating a radiation source to direct a beam from a treatment head along a beam path toward a treatment area;

selectively controlling ~~a first~~ an internal collimator to collimate said beam;

selectively controlling ~~a second~~ said external collimator to collimate said beam, said ~~second~~ external collimator removably positioned between said ~~first~~ internal collimator and said treatment area.

23. (presently amended) A radiation therapy method, comprising:

installing an external collimator on an accessory tray of a radiation therapy device such that drive electronics of said external collimator are mounted on an exterior of said accessory tray;

selecting between an electron treatment beam and a photon treatment beam;

directing said selected beam from a radiation source along a beam path toward a treatment area;

selectively controlling ~~a first~~ a photon collimator to collimate said selected beam if said selected beam is said photon beam; and

selectively controlling ~~a second~~ said external collimator to collimate said selected beam if said selected beam is said electron beam, wherein said ~~second~~ external collimator is positioned between said ~~first~~ photon collimator and said treatment area.